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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/073,306 | 02/13/2002 | Alexander Leonidovich Berestov | 03650.001013 | 6316 |

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| EXAMINER |
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FILIPCZYK, MARCIN R

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| ART UNIT | PAPER NUMBER |
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2161

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,306

Applicant(s)

BERESTOV, ALEXANDER
LEONIDOVICH

Examiner

Marc R Filipczyk

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/13/02, 4/25/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to application filed on February 13, 2002 in which claims 1-17 are presented for examination.

Specification

The disclosure is objected to because of the following informalities:

On page 11, line 4, "a area" should be replaced with "an area".

Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, "the topography direction" is indefinite. It is not clear what a topography direction is.

Regarding claim 4, "another topography surface" is indefinite. It is not clear what another topography surface is nor what a first (prior to another) topography surface is.

Regarding claim 10, the term “known” is indefinite. Known implies human knowledge, but human knowledge is unique to each individual, thus what is known to one might not be known by another, hence the term “known” does not have a definitive meaning.

Regarding claim 11, the segment “global coordinate system is one that has its origin in a patient’s body” is indefinite. The invention does not teach a system (physical entity) inside a human body, thus system with its origin in a body is not clear.

Regarding claim 15, “the information” on lines 17 and 19 is indefinite. It is not clear what information is referred to. Further, “the topography direction” is indefinite. It is not clear what a topography direction is.

Regarding claim 16, the segment, “applications that do not involve fusion” is indefinite. It is not clear what applications are and are not involved in the fusion.

Regarding claims 2-14 and 17 depend from claims 1 and 16 respectively, and are therefore rejected on the same basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 and 12-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Henderson et al (U.S. Patent No 6,047,227).

Regarding claims 1, 15 and 16, Henderson discloses a data storage format for storing topography data associated with an object comprising (fig. 1):

a first section for storing topography data in relation to a reference entity with respect to which the topography data is determined (fig. 1, item 104, and col. 3, lines 27-29: *desired site*);

a second section for storing information concerning the reference entity (fig. 1, item 104, and col. 3, lines 27-29: *actual site*);

a third section for storing information concerning the topography direction along which the topography data is measured or calculated (fig. 1, item 102, and col. 3, lines 29-36: *differencing algorithm*), and Henderson further discloses an image is fused to the topography data (figs. 5A and 5B, col. 7, lines 20-23: site contours are overlaid).

Regarding claims 2-4, Henderson discloses the topography and reference entities are in N-dimensional space (figs. 5A and 5B)

(Note: site models are 3 dimensional [3-D] geographies)

Regarding claims 5-7, Henderson discloses the reference entity is described as a function, point or line in N-dimensional space (figs. 5A and B; function)

(Note: functions can be simplified to a line and a point by reducing their dimensions, i.e., xyz plane to xy coordinate, a point)

Regarding claims 8-10, Henderson discloses the reference entity and topographic direction are in Cartesian or non-Cartesian coordinate system and that their coordinates are known (col. 3, lines 17-25).

(Note: GPS and Radar use both Cartesian and non-Cartesian coordinate system to locate/monitor objects/geographies)

Regarding claim 12, Henderson discloses the reference entity and the topography direction are registered with respect to a first coordinate system, the first coordinate system being registered to the global coordinated system (col. 3, lines 17-25 and fig. 3, items 312 and 316).

Regarding claim 13, Henderson discloses a transformation is performed between the first coordinate system and a second coordinate system to which a three dimensional image is registered, the second coordinate system being independent from the first coordinate system and being registered to the global coordinate system (fig. 3, GPS, and col. 3, lines 29-35).

Regarding claims 14 and 17, Henderson discloses a three dimensional image is fused to the topography data (figs, 5A and 5B, col. 7, lines 20-23: site contours are overlaid).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2161

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson et al (U.S. Patent No 6,047,227) in view of Applicant Admitted Prior Art (AAPA).

Regarding claim 11, Henderson discloses all of the claimed subject matter as discussed above including global coordinate system (fig. 3, GPS) but does not teach the global coordinate system has its origin in a patient's body. However, Examiner asserts that a global coordinate system (GCS) or a scanning system having its origin referenced in a patient's body was notoriously well known in the medical field of MRI. For example, Applicant admits that a CT scanner acquires a volumetric data set of a human skull (page 3, lines 4-10, AAPA) which has its origin map (start and end scan location using GCS) to scan and process the 3-D image of the human skull. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to point to a patient's body as its origin as done by the CT scanner and other well known systems in the medical field by pointing the GCS at a patient's body. One would have been motivated to point a GCS on a patient's body to track or locate a specific body part.

Conclusion

To expedite the process of examination Examiner requests that all future correspondences in regard to overcoming prior art rejections or other issues (e.g. amendments, 35 U.S.C. 112, objections and the like) set forth by the Examiner that Applicants provide and link to the most specific page and line numbers of the disclosure where the best support is found (see 35 U.S.C. 132).

Art Unit: 2161

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc R Filipczyk whose telephone number is (571) 272-4019.

The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MF

January 19, 2005



SAFET METJAHIC
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